

Appendix II: Pending Claims in Clean Form

1. A composition for chemical mechanical planarization comprising an aqueous solution of ozone and abrasive particles.
2. A composition as in claim 1 wherein said abrasive particles are selected from the group consisting of alumina, silica, ceria, spinel, zirconia and mixtures thereof.
3. A composition as in claim 1 further comprising at least one additive selected from the group consisting of carbonate, bicarbonate, oxalic acid, formic acid, acetic acid, glycol acids and mixtures thereof.
4. A composition as in claim 1 wherein a concentration of ozone in said aqueous solution is less than that at which ozone interactions occur.
5. A composition as in claim 4 wherein said concentration of ozone is less than about 20 parts per million.
6. A composition as in claim 1 further comprising at least one ammonium salt.
7. A composition as in claim 6 wherein said at least one ammonium salt is ammonium carbonate.
8. A method of planarizing a surface by directing ozone gas onto said surface and causing relative motion of said surface and a polishing pad in contact therewith, wherein a fluid is present.
9. A method of planarizing a surface by directing onto said surface an aqueous solution containing ozone and causing relative motion of said surface and a polishing pad in contact therewith.

10. A method as in claim 9 further comprising abrasive particles in said aqueous solution.

11. A method as in claim 10 wherein said abrasive particles are selected from the group consisting of alumina, silica, ceria, spinel, zirconia and mixtures thereof.

12. A method as in claim 10 further comprising at least one ammonium salt in said aqueous solution.

13. A method as in claim 12 wherein said at least one ammonium salt is ammonium carbonate.

14. A method as in claim 9 wherein the surface comprises a material selected from a group consisting of iridium, iridium oxide, and platinum.

15. A method as in claim 9 wherein the surface comprises a low k material.

16. A method as in claim 9 wherein the surface comprises a structure selected from a group consisting of a hard disk and a micro electrical mechanical structure.

17. A method as in claim 9 wherein said directing comprises directing the aqueous solution at a location proximate a carrier of the surface.

18. A method as in claim 17 wherein the location is less than one inch downstream of the surface.

19. A method as in claim 9 wherein a pH of the aqueous solution is from about 2 to about 8.

20. A method as in claim 9 wherein the aqueous solution comprises reagents selected from a group consisting of carbonate anions, bicarbonate anions, oxalic acid, formic acid, acetic acid, and glycol acids.

21. A method as in claim 9, further comprising controlling a temperature of the aqueous solution.

22. A method as in claim 21 wherein said controlling comprises lowering the temperature.

23. A method as in claim 21 wherein said controlling comprises refrigerating the aqueous solution.

24. A method as in claim 9, further comprising controlling a concentration of ozone in the aqueous solution.

25. A method as in claim 24 wherein said controlling comprises controlling the concentration of ozone such that it is less than or equal to 20 ppm.

26. A method as in claim 9 comprising spin-etching of the surface.